METHOD AND DATA PROCESSING UNIT FOR SELECTING A RISK ASSESSMENT COMPUTER PROGRAM

PRIORITY STATEMENT

[0001] The present application hereby claims priority under 35 U.S.C. § 119 to European patent application number EP19153273.8 filed Jan. 23, 2019, the entire contents of which are hereby incorporated herein by reference.

FIELD

[0002] The invention generally relates, in one embodiment, to a computer-implemented method for displaying a graphical user interface that contains a selection element to select one risk assessment computer program out of a patient-related subset of a plurality of risk assessment computer programs of a patient on a display unit for an user. In another embodiment, the invention generally relates to a data processing unit, a computer program product and a computer-readable medium.

BACKGROUND

[0003] In the decision-making process within a hospital environment typically risk assessment computer programs are used by a physician to decide on the management of a patient. Such a risk assessment computer program can be an essential tool for the physician because it usually provides an accurate estimate of risk. Risk assessment computer programs can be used for designing a clinical trial, e.g., to ensure that homogeneous and/or high-risk patient groups are included. One advantage of the risk assessment computer programs can be the increased performance in predicting probabilities of clinical outcome of the managed patient compared to clinical judgment of the physician. The risk assessment computer programs are typically used at different points in the patient's evolution and/or clinical pathway, for instance, early to predict cancer on initial biopsy and/or on repeat biopsy, or at a later time point to predict biochemical recurrence after specific treatment of the cancer.

[0004] Usually over 100 different risk assessment computer programs are available to the physician and/or provided within a computer network, e.g. the Internet. However, the proper selection of the risk assessment computer program suitable at that specific point in the patient's evolution and/or clinical pathway can be very challenging for the physician.

SUMMARY

[0005] An underlying technical problem of at least one embodiment of the invention provides a computer-implemented method for displaying a graphical user interface that contains a selection element to select one risk assessment computer program out of a patient-related subset of a plurality of risk assessment computer programs of a patient on a display unit for an user, a data processing unit, a computer program product and a computer-readable medium with increased usability for the physician.

[0006] This problem may solved by the features of the at least one embodiment. Advantageous embodiments are disclosed within the claims.

[0007] The invention relates in one embodiment to a computer-implemented method for displaying a graphical user interface that contains a selection element to select one risk assessment computer program out of a patient-related subset of a plurality of risk assessment computer programs of a patient on a display unit for an user, the method comprising:

[0008] retrieving a set of disease-related workflows, each disease-related workflow of the set of disease related workflows including at least two disease-related stages and being stored within a computer network,

[0009] retrieving a plurality of risk assessment computer programs, each risk assessment computer program predicting a probability of clinical outcome and being stored within the computer network,

[0010] retrieving a patient-related data record of the patient from the computer network,

[0011] selecting a disease-related dataset from the patient-related data record,

[0012] determining at least one of the disease-related workflow stages from the set of disease-related workflows based on a first disease-related mapping function, the selected disease-related dataset being an input of the first disease-related mapping function,

[0013] determining a patient-related subset of the plurality of risk assessment computer programs based on a second disease-related mapping function, the determined at least one of the disease-related workflow stage being an input of the second disease-related mapping function, and

[0014] displaying the graphical user interface that contains the selection element to select the one risk assessment computer program out of the patient-related subset of the plurality of risk assessment computer programs of the patient on the display unit for the user.

[0015] One embodiment of the invention relates in one aspect to a method, wherein a calculable subset of the plurality of risk assessment computer programs is determined, wherein the calculable subset is used as input for determining the patient-related subset and wherein the determining the calculable subset comprises following steps:

[0016] providing a set of input parameter categories, wherein the plurality of risk assessment computer programs depends on the set of input parameter categories, each risk assessment computer program predicting the probability of clinical outcome as the function of values in the input parameter categories,

[0017] selecting a patient-related dataset from the patient-related data record, wherein the patient-related dataset comprises at least one input parameter category,

[0018] comparing the patient-related dataset with the provided set of input parameter categories of the plurality of risk assessment computer programs, whereby the calculable subset of the plurality of risk assessment computer programs is determined. This embodiment can be particularly advantageous since in addition to the at least one of the disease-related workflow stages the calculability of the plurality of risk assessment computer programs is considered.

[0019] At least one embodiment is directed to a computer-implemented method for displaying a graphical user interface containing a selection element to select one risk assessment computer program out of a patient-related subset of a plurality of risk assessment computer programs of a patient on a display unit for an user, the method comprising:

[0020] retrieving a set of disease-related workflows, each disease-related workflow of the set of disease-